Electronic Structure of Layered Transition Metal Dichalcogenides

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I will present angle-resolved photoemission data on several layered transition metal dichalcogenides, including the compounds 1T-TiTe2, 1T-TiSe2, 1T-TaS2, 2H-NbSe2, and 2H-TaSe2, and I will try to answer the following questions:

- What drives charge-density waves in quasi-2 dimensions?
- Is TiTe2 a model 3-dimensional Fermi liquid?
- And is it possible to create new ground states by adsorbing alkali metals on transition metal dichalcogenide surfaces?